How to Use Your
JOINT STATE NEEDS ASSESSMENT COUNTY INDEX SUMMARY

JSNA Partners
Maternal and Child Health: Bureau for Children, Youth & Families
Primary Care: Office of Local and Rural Health
HIV/AIDS: Bureau for Epidemiology and Disease Prevention

KDHE Bureau for Children, Youth and Families
1000 SW Jackson, Suite 220
Topeka, KS 66612-1274
(785) 291-3368

What are all these numbers, and what do they mean to me?

The JSNA County Index Summary reports key county-level results to aid your community in evaluating your needs and planning program activities to meet those needs. Use your Index Summary along with other information about the needs and services available in your community.

What is an Index?

An index is a tool which combines key indicators into one number. There are five indexes representing how your level of "need" for primary care, family planning, perinatal, child health, and adolescent health services compares to the need in other counties. But remember the indexes are just a tool. They don't tell the whole story. Use each index in conjunction with other data, program information, and expert opinion of key stakeholders in your community.

What is an indicator?

An "indicator" is an individual measurement or piece of information related to your population's health, demographics, or need for services.

Can you elaborate on the difference between "indicator" and "index"?

Each index is made up of nine to nineteen indicators. The Primary Care Index, for example, has fifteen indicators. The indicators serve as the "building blocks" for each overall Index score. (See pages 3 and 4 for a detailed listing of indicators used in the five Indexes.)

Explain the column headings for each Index.

For each Index, there are four columns of numbers titled "Number", "Rate or Percent", "Indicator Rank", and "Indicator Z-Score".

Number:

The number of events of the stated characteristic in your county. (Exception: Per Capita Income reports average income per person in dollars.) For example, the Primary Care Index may report 2,000 people aged 65 or older, and the Family Planning Index may report 50 pregnancies to females aged 15 to 17. The number column is blank for indicators based on survey data, such as Percent Adolescent Smoking in the Adolescent Health Index. Some of the indicators are based on more than one year of data, so interpret this column with caution.

Rate or Percent:

The indicator value, usually a rate or percent, such as the unemployment rate, percent immunized, or suicide death rate.

Indicator Rank:

For all indicators, counties are ranked from 1 to 105 where "1" = largest indicator value and "105" = smallest indicator value. Interpret ranks cautiously! A rank of "1" can be "favorable" or "unfavorable", depending on the indicator. For example, a rank of "1" for percent of children below poverty indicates that your county has the highest proportion of children living in poverty (a "unfavorable" outcome), but a rank of "1" in graduation rate indicates that your county has the highest graduation rate in the state (a "favorable" outcome).

Indicator Z-Score:

A z-score is simply a way of standardizing the indicator values. Suppose your county has a per capita income of $20,000 and an infant mortality rate of 8.0. Are these "good" or "bad" values? What do the numbers mean? A z-score, or standardized score, can tell you at-a-glance how your county fairs relative to others. **For *every* indicator, a high z-score indicates high need; a low z-score indicates low need, relative to other counties**.

Why are the Child and Adolescent Health Indexes considered "Developmental"?

Data for the child and adolescent health populations and their related health issues are not as well-developed as some of the other populations. Furthermore, these indexes have not yet undergone the same level of scrutiny as the others by program staff. We will continue to seek accurate data describing pertinent child and adolescent health issues, and we invite your input.

| **I want to make sure I understand the z-scores. A z-score of 0 means my county is average, a negative z-score means my county has a below average need, and a positive z-score indicates an above average need?** | Yes, a score of 0.0 means that your county is average compared to all other counties. But be careful: this is *not* the same as having an indicator value equal to the state rate or percent. For example, a 15-17 pregnancy rate of 31.0 is equal to the county average and would result in a standardized score of 0.0. However, the Kansas 15-17 pregnancy rate is 38.7 (1994-1998). Kansas rates are based on the entire population rather than the county average and, thus, tend to be similar to the rates of urban counties which have the largest populations.

That's right. A negative score indicates your county is, on average, "less" in need than other counties, while a positive score indicates your county is likely "more" in need. |

What z-scores indicate "extreme" values?

The majority of the z-scores will fall between -1.0 and +1.0; scores in this range may be considered in the average range. Counties with a standardized score greater than +1.0 tend to be among the 10-15 counties most in need for that particular indicator. Similarly, counties with standardized scores less than -1.0 tend to be among the 10-15 counties least in need. Furthermore, counties with a standardized score greater than +2.0 tend to be *considerably* more in need than other counties in the state. Similarly, counties with a standardized score less than -2.0 tend to be *considerably* less in need than others. Counties with standardized scores greater than +3.0 and less than -3.0 represent even more extreme differences.

How, exactly, are the Indexes calculated?

Z-scores are each multiplied by a weight, then summed to form the index. Since *weights* are applied to the indicators, the sum of the z-scores will not necessarily equal the Index score. See the indicator listing on pages 3 and 4 for the weights used.

How is the "Overall Comparative Need" determined?

For each index, a statement about your county's "Overall Comparative Need" is based on your county's index rank:

Rank	Percentile	Overall Comparative Need
1 - 10	0 - 10th	Very High
11 - 22	10th - 20th	High
23 - 43	21st - 40th	Upper Middle
44 - 64	41st - 60th	Middle
65 - 85	61st - 80th	Lower Middle
86 - 105	81st - 100th	Low

How do I interpret the graphs?

To the right of each indicator, the corresponding z-score is graphed. The graphs allow you to quickly visualize your performance on each indicator.

My county has a z-score of 3.5, but it only shows up as 3 on the graph.

That's right. Graphs are scaled from -3 to +3. Z-scores less than this range will be graphed as -3; z-scores higher than this range will be graphed as +3. If your county has one or more of these "extreme" values, it may be an indication of small number concerns rather than a truly extreme need.

What are small number concerns?

Statistics based on small numbers should be interpreted very cautiously. Normal variation in the number of events from one time period to the next can cause extreme variation in corresponding rates or percentages. Look at the "Number" column to determine the number of events for each indicator in your county. Here are some general rules to guide your use of the data:
1. Do *not* use rates, percentages, ranks, or standardized scores based on less than five events for planning purposes.
2. Interpret statistics based on less than twenty events with extreme caution.
3. If you are from a frontier or rural county, be mindful of small number problems.

How can I use this tool for program planning in my community?

For each index, look at your z-scores. Are the scores mostly positive, indicating your county tends to be more in need than other counties for most of the indicators? Do you have a wide range of scores, some positive and some negative? Are standardized scores associated with certain indicators particularly high or low, dominating your Index? Use each Index to help determine your overall need in a particular area. Use the individual indicator information along with other data to help you target populations in need and develop interventions. Which indicators stand out as particularly high or low need for your county?

For more information:

Contact one of the JSNA Partners directly, or call (785) 296-1300 *or* 1-800-332-6262 and ask to speak with the JSNA Project Coordinator.

Indicator Descriptions

#	Full Description, Year(s), and Data Source	Weight
	Primary Care Index	
1	Percent Minority: Percent Black, Asian/Pacific Islander, Native American, and/or Hispanic (1998 Census estimates)	1
2	Percent Aged 65 & Older: Percent of population aged 65 and older (1998 Census estimates)	1
3	Percent Below Poverty: Percent of population living below poverty level (1994-1996 Census estimates, 3-year average)	1
4	Percent Low Birth Weight Births: Percent of live births below 2500 grams (1994-1998 Kansas Vital Statistics, KDHE)	1
5	Crude Birth Rate: Total live births per 1,000 population (1994-1998 Kansas Vital Statistics, KDHE)	1
6	Crude Death Rate: Total deaths per 1,000 population (1994-1998 Kansas Vital Statistics, KDHE)	1
7	Violent Crime Rate: Reported violent crimes (includes murder/non-negligent manslaughter, attempted murder, rape, robbery, and aggravated assault/battery) per 1,000 population (1997 Kansas Bureau of Investigation)	1
8	Unintentional Injury Death Rate: Deaths from unintentional injuries per 100,000 population (1994-1998 Kansas Vital Statistics, KDHE)	0.5
9	Unintentional Injury YPLL Rate: Years productive life lost due to unintentional injury per 1,000 population under age 65 (1994-1998 Kansas Vital Statistics, KDHE)	0.5
10	Percent Preventable Cancers Detected Early: Known staged preventable cancers (includes breast, cervical, colorectal, lung & bronchus, prostate, and skin melanoma) detected at *in situ* or local stage (1996-1997 Kansas Cancer Registry)	1
11	Preventable Hospitalizations Rate: "Preventable" (as defined by *1999 Kansas County Health Profile*) inpatient hospitalizations per 1,000 population (1993-1997 Kansas Hospital Association)	1
12	Percent Immunized by Age 2: Percent kindergartners reported receiving immunization (4-3-1) by age 2 (1994-1995 Retrospective Immunization Survey, KDHE)	1
13	Percent with Adequate Prenatal Care: Percent mothers scoring adequate or better on the Adequacy of Prenatal Care Utilization (APNCU) Index (1998 Kansas Vital Statistics, KDHE)	1
14	Population to Primary Care Physician Ratio: Population per primary care provider (includes General Practice, Family Practice, Pediatrics, Internal Medicine, and Obstetrics/Gynecology specialties) FTE (full-time equivalent) (1998 Office of Health Care Information, KDHE)	1
15	Percent Linguistically Isolated: Percent Age 5 & Over Living in Linguistically Isolated Households (1998 Claritas, Inc.)	1
	Family Planning Index	
1	Percent Live Births to Mothers with Low Education (< 12 Years) (1994-1998 Kansas Vital Statistics, KDHE)	1
2	Per Capita Income (1997 Census Bureau)	1
3	Unemployment Rate (1998 Kansas Department of Human Resources)	1
4	Pregnancy Rate: Age 15-17 (1994-1998 Kansas Vital Statistics, KDHE; 1998 Census population estimates)	0.75
5	Pregnancy Rate: Age 18-19 (1994-1998 Kansas Vital Statistics, KDHE; 1998 Census population estimates)	0.5
6	Pregnancy Rate: Ages 20-34 (1994-1998 Kansas Vital Statistics, KDHE; 1998 Census population estimates)	1
7	Pregnancy Rate: Ages 35-44 (1994-1998 Kansas Vital Statistics, KDHE; 1998 Census population estimates)	1
8	Percent "Repeat" Teen Births: Percent Teen Mothers (< Age 20) with Repeat Birth (1994-1998 Kansas Vital Statistics, KDHE)	1
9	Percent with Short Interbirth Spacing (< 18 months) (1994-1998 Kansas Vital Statistics, KDHE)	1
	Perinatal Index	
1	Percent of Female Population Aged 15-44 (1998 Census estimates)	1
2	Percent Children (Age 0-17) Below Poverty Level (1994-1996 Census estimates, 3 year average)	1
3	Percent Live Births to Mothers with Low Education (< 12 Years) (1994-1998 Kansas Vital Statistics, KDHE)	1
4	Medicaid Deliveries Rate: Medicaid Deliveries per 100 Live Births (1997-1998)	1
5	Percent Low Weight Singleton Births: % Singleton Live Births Below 2500 Grams (1994-1998 Kansas Vital Statistics, KDHE)	1.25
6	Percent Mothers Scoring Adequate or Better on Adequacy of Prenatal Care Utilization (APNCU) Index (1998)	1.5
7	Teen Birth Rate: Live Births and Fetal Deaths per 1,000 Females Aged 15-17 (1994-1998 Kansas Vital Statistics, KDHE)	1
8	Infant Mortality Rate: Infant Deaths per 1,000 Live Births (1994-1998 Kansas Vital Statistics, KDHE)	0.75
9	Percent Breastfeeding (WIC Mothers): Percent of WIC Mothers Breastfeeding at Postpartum Visit (1998)	0.5

#	Full Description, Year(s), and Data Source	Weight
	Child Health Index	
1	Percent Aged 0 to 9: Percent of Population Aged 0 to 9 (1998 Census estimates)	1
2	Percent (Age 0-17) Below Poverty Level (1994-1996 Census estimates, 3 year average)	1
3	Percent Overweight WIC Children (i.e., High Weight for Height) (1998, 1997 data used for Edwards, Logan, and Rawlins counties, KDHE WIC Program)	1
4	Percent Age 0-15 Not Using Safety Equipment: Percent Motor Vehicle Crash Victims Age 0-15 Not Using Seat Belt (1994-1998 Kansas Accident Reporting System, Kansas Department of Transportation)	1
5	Child Abuse Rate: Reported Child Abuse Cases per 1,000 Age 0-17 (1998 SRS)	1
6	Child Death Rate: Deaths per 100,000 Age 1-14 (1994-1998 Kansas Vital Statistics, KDHE)	1
7	Respiratory Inpatient Hospitalizations per 10,000 Age 0-17 (1993-1997 Kansas Hospital Association)	1
8	Inpatient Hospitalizations for Mental Health Problems per 100,000 Age 0-14 (1993-1997 Kansas Hospital Association)	1
9	Kan Be Healthy (KBH) Medical Participation Rate (Age 0-9): Percent Eligible (Age 0-9) with at least one KBH Medical Screen (1998 SRS)	1
10	KBH Dental Participation Rate (Age 6-9): Percent Eligible (Age 0-9) with at least one KBH Dental Screen (1998 SRS)	1
11	Percent Kindergartners Reported Receiving Immunization (4-3-1) by Age 2 (1994-1995 Retrospective Immunization Survey, KDHE)	1
12	Child Care Availability Rate: Child Care Availability per 100 Age 0-12 (1998 Child Care Licensing, KDHE)	1
13	Head Start Availability Rate: Head Start Slots Available per 100 Age 3-5 in Poverty (1998 Kansas Action for Children)	1
	Adolescent Health Index	
1	Percent Aged 10-24: Percent of Population Aged 10-24 (1998 Census estimates)	1
2	Percent Aged 5-17 Below Poverty (1994-1996 Census estimates, 3 year average)	1
3	Percent Age 10-24 Eligible for Medicaid: Percent Aged 10-24 Enrolled in Medicaid (1998 SRS)	1
4	Juvenile Court Filings per 1,000 Aged 0-17 (1998 Kansas Action for Children)	1
5	Percent Enrolled Receiving High School Diploma (1997 Kansas Action for Children)	1
6	Percent of High School Grads Pursuing Post-Secondary Education (1997 Kansas Action for Children)	1
7	Suicide Deaths per 100,000 ages 15-24 (1994-1998 Kansas Vital Statistics, KDHE)	1
8	Homicide Deaths per 100,000 ages 15-24 (1994-1998 Kansas Vital Statistics, KDHE)	1
9	Motor Vehicle Deaths per 100,000 aged 15-24 (1994-1998 Kansas Vital Statistics, KDHE)	1
10	Alcohol-Related Motor Vehicle Accident Victims per 100,000 aged 15-24 (1994-1998 Kansas Vital Statistics, KDHE)	1
11	STD Rate (Age 15-19): Chlamydia cases per 10,000 ages 15-19 (1995-1998 KDHE)	1
12	Percent Middle & High School Students who Consumed Alcohol within past 30 days (Communities That Care Survey 1999, or latest available survey year)	1
13	Percent Middle & High School Students who Smoked Cigarettes within past 30 days (Communities That Care Survey 1999, or latest available survey year)	1
14	Percent Middle & High School Students who Used Marijuana within past 30 days (Communities That Care Survey 1999, or latest available survey year)	0.67
15	Percent Middle & High School Students who Used Inhalants within past 30 days (Communities That Care Survey 1999, or latest available survey year)	0.33
16	Alcohol-Related Hospitalization Rate: Hospitalizations for Drugs & Alcohol per 100,000 Aged 15-24 (1993-1997 Kansas Hospital Association)	1
17	Adolescent Mental Hospitalization Rate: Hospitalizations for Mental Health Problems per 10,000 Aged 15-24 (1993-1997 Kansas Hospital Association)	1
18	Kan Be Healthy (KBH) Medical Participation Rate (Age 10-21): Percent Enrolled in Medicaid (Age 10-21) with at least one KBH Medical Screen	1
19	Kan Be Healthy (KBH) Dental Participation Rate (Age 10-21): Percent Enrolled in Medicaid (Age 10-21) with at least one KBH Dental Screen	1